

PCT

REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

International Application No.

International Filing Date

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference
(if desired) (12 characters maximum) 062002-2910

Box No. I TITLE OF INVENTION DETECTION SYSTEMS AND METHODS

Box No. II APPLICANT

This person is also inventor

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

GEORGIA TECH RESEARCH CORPORATION
505 Tenth Street, NW
Atlanta, GA 30332-0415
US

Telephone No.

Facsimile No.

Teleprinter No.

Applicant's registration No. with the Office

State (that is, country) of nationality:
US

State (that is, country) of residence:
US

This person is applicant all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box

Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

HUNT, William D.
109 Kirk Crossing
Decatur, GA 30030
US

This person is:

applicant only

applicant and inventor

inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:
US

State (that is, country) of residence:
US

This person is applicant all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box

Further applicants and/or (further) inventors are indicated on a continuation sheet.

Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The person identified below is hereby/has been appointed to act on behalf of agent common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

VORNDRAN, Charles
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP.
100 Galleria Parkway, NW
Suite 1750
Atlanta, GA 30339-5948
US

Telephone No.

770-933-9500

Facsimile No.

770-951-0933

Teleprinter No.

Agent's registration No. with the Office

45,315

Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

If none of the following sub-boxes is used, this sheet should not be included in the request.

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

CAIRNEY, John
2611 Fox Hill Drive
Decatur, GA 30033
US

This person is:

applicant only
 applicant and inventor
 inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:
USState (that is, country) of residence:
US

This person is applicant all designated States all designated States except the the United States of America only the States indicated in the Supplemental

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

applicant only
 applicant and inventor
 inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the all designated States all designated States except the the United States of America only the States indicated in the Supplemental

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This person is:

applicant only
 applicant and inventor
 inventor only (If this check-box is marked, do not fill in below.)

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State (that is, country) of residence:

This person is applicant for the all designated States all designated States except the the United States of America only the States indicated in the Supplemental

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

applicant only
 applicant and inventor
 inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the all designated States all designated States except the the United States of America only the States indicated in the Supplemental

Further applicants and/or (further) inventors are indicated on another continuation sheet.

Box No.V DESIGNATIONS

The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.

However,

- DE Germany is not designated for any kind of national protection
- KR Republic of Korea is not designated for any kind of national protection
- RU Russian Federation is not designated for any kind of national protection

(The check-boxes above may be used to exclude (irrevocably) the designations concerned in order to avoid the ceasing of the effect, under the national law, of an earlier national application from which priority is claimed. See the Notes to Box No. V as to the consequences of such national law provisions in these and certain other States.)

Box No. VI PRIORITY CLAIM

The priority of the following earlier application(s) is hereby claimed:

Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country or Member	regional application:*	international application: receiving Office
item (1) 13 November 2003 (13/11/2003)	60/519,800	US		
item (2)				
item (3)				

Further priority claims are indicated in the Supplemental Box.

The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (*only if the earlier application was filed with the Office which for the purposes of this international application is the receiving Office*) identified above as:

all items item (1) item (2) item (3) other, see Supplemental Box

* Where the earlier application is an ARIPO application, indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed (Rule 4.10(b)(ii)):

Box No. VII INTERNATIONAL SEARCHING AUTHORITY

Choice of International Searching Authority (ISA) (if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):

ISA/us

Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority):

Date (day/month/year) Number Country (or regional Office)

Box No. VIII DECLARATIONS

The following **declarations** are contained in Boxes Nos. VIII (i) to (v) (mark the applicable check-boxes below and indicate in the right column the number of each type of declaration):

Number of declarations

- Box No. VIII (i) Declaration as to the identity of the inventor
- Box No. VIII (ii) Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent
- Box No. VIII (iii) Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application
- Box No. VIII (iv) Declaration of inventorship (only for the purposes of the designation of the United States of America)
- Box No. VIII (v) Declaration as to non-prejudicial disclosures or exceptions to lack of novelty

Box No. IX CHECK LIST; LANGUAGE OF FILING

This international application contains:
(a) in paper form, the following number of sheets:

request (including declaration sheets)	: 4
description (excluding sequence listing and/or tables related thereto)	: 22
claims	: 11
abstract	: 1
drawings	: 7

Sub-total number of sheets 45

sequence listing	:
tables related thereto	:
(for both, actual number of sheets if filed in paper form, whether or not also filed in computer readable form; see (c))

Total number of sheets : 45

(b) only in computer readable form (Section 801(a)(i))

(i) sequence listing
(ii) tables related thereto

(c) also in computer readable form (Section 801(a)(ii))

(i) sequence listing
(ii) tables related thereto

Type and number of carriers
(diskette, CD-ROM, CD-R or other) on which are contained the

sequence listing:
 tables related thereto:
(additional copies to be indicated under items 9(ii) and/or 10(ii), in right column)

This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item):

1. <input checked="" type="checkbox"/> fee calculation sheet	:
2. <input type="checkbox"/> original separate power of attorney	:
3. <input type="checkbox"/> original general power of attorney	:
4. <input type="checkbox"/> copy of general power of attorney; reference number, if any:	:
5. <input type="checkbox"/> statement explaining lack of signature	:
6. <input type="checkbox"/> priority document(s) identified in Box No. VI as item(s):	:
7. <input type="checkbox"/> translation of international application into (language):	:
8. <input type="checkbox"/> separate indications concerning deposited microorganism or other biological material	:
9. <input type="checkbox"/> sequence listing in computer readable form (indicate type and number of carriers)	:
(i) <input type="checkbox"/> copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application)	:
(ii) <input type="checkbox"/> (only where check-box (b)(i) or (c)(i) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter	:
(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the sequence listing mentioned in left column	:
10. <input type="checkbox"/> tables in computer readable form related to sequence listing (indicate type and number of carriers)	:
(i) <input type="checkbox"/> copy submitted for the purposes of international search under Section 802(b-quater) only (and not as part of the international application)	:
(ii) <input type="checkbox"/> (only where check-box (b)(ii) or (c)(ii) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Section 802(b-quater)	:
(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the tables mentioned in left column	:
11. <input checked="" type="checkbox"/> other (specify): Return postcard; certificate of mailing	:

Figure of the drawings which should accompany the abstract:

Language of filing of the international application: English

Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).

Charles Vorndran, Ph.D.
Attorney for Applicant

For receiving Office use only		2. Drawings: <input type="checkbox"/> received: <input type="checkbox"/> not received:
1. Date of actual receipt of the purported international application:	JAP7 Rec'd PCT/IPTO 11 MAY 2006	
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:		
4. Date of timely receipt of the required corrections under PCT Article 11(2):		
5. International Searching Authority (if two or more are competent): ISA/	6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid	

For International Bureau use only

Date of receipt of the record copy by the International Bureau:

This sheet is not part of and does not count as a sheet of the international application.

PCT

FEE CALCULATION SHEET Annex to the Request

For receiving Office use only

International Application No.

Date stamp of the receiving Office

Applicant's or agent's
file reference **062002-2910**

Applicant

Georgia Tech Research Corporation, et al.

CALCULATION OF PRESCRIBED FEES

1. TRANSMITTAL FEE **300.00** **T**

2. SEARCH FEE **1,000.00** **S**

International search to be carried out by **ISA/US**

(If two or more International Searching Authorities are competent to carry out the international search, indicate the name of the Authority which is chosen to carry out the international search.)

3. INTERNATIONAL FILING FEE

Where item (b) and/or (c) of Box No. IX apply, enter Sub-total number of sheets } **45**
Where item (b) and (c) of Box No. IX do not apply, enter Total number of sheets }

i1 first 30 sheets **1,134.00** **i1**

i2 **15** x **12.00** = **180.00** **i2**
number of sheets in excess of 30

i3 additional component (only if sequence listing and/or tables related thereto are filed in computer readable form under Section 801(a)(i), or both in that form and on paper, under Section 801(a)(ii)):

400 x **fee per sheet** = **i3**

Add amounts entered at **i1**, **i2** and **i3** and enter total at **I** **1,314.00** **I**

(Applicants from certain States are entitled to a reduction of 75% of the international filing fee. Where the applicant is (or all applicants are) so entitled,

4. FEE FOR PRIORITY DOCUMENT (if applicable) **20.00** **P**

5. TOTAL FEES PAYABLE **2,634.00**

Add amounts entered at **T**, **S**, **I** and **P**, and enter total in the **TOTAL** box

MODE OF PAYMENT

authorization to charge deposit account (see below) postal money order cash coupons
 cheque bank draft revenue stamps other (specify):

AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT ACCOUNT

(This mode of payment may not be available at all receiving Offices)

Authorization to charge the total fees indicated above.

(This check-box may be marked only if the conditions for deposit accounts of the receiving Office so permit) Authorization to charge any deficiency or credit any overpayment in the total fees indicated above.

Authorization to charge the fee for priority document.

Receiving Office: **RO/US**

Deposit Account No.: **20-0778**

Date: **15 November 2004**

Name: **Charles Vorndran, Ph.D.**

Signature: 